

NOTE: The Central Training Academy (CTA) is in the process of developing study materials for the Safeguards and Security portion of the Technical Qualification Program. This material will include the content of Occupational Safety competency 1.15. For your convenience, the Oak Ridge Operations Office (ORO) developed the following study material in order to offer the Occupational Safety professional a resource while CTA's study materials are in development. ORO was responsible for the development of study materials for most of the Occupational Safety functional standard. The material offered here will be replaced when CTA's material is approved and made available.

Occupational Safety Competency 1.15

Competency 1.15 Occupational safety personnel shall demonstrate a working level knowledge of firearms safety.

1. Supporting Knowledge and Skills

- a. Identify the personal protective equipment necessary during the use of firearms.
- b. Discuss firing range safety considerations including required procedures and controls.
- c. Discuss the principles of firearms safety and describe appropriate and mandated controls.
- d. Discuss the industrial hazards (e.g., noise and lead exposures) associated with firing ranges and describe appropriate control measures.
- e. Describe and apply firearms safety precautions associated with Department of Energy safeguards and security operations and exercises.

2. Self-Study Activities (Corresponding to the Intent of the Above Competency)

Below are two web sites containing many of the references you may need.

Web Sites		
Organization	Site Location	Notes
Department of Energy	http://wastenot.inel.gov/cted/stdguido.html	DOE Standards, Guides, and Orders
U.S. House of Representatives	http://law.house.gov/cfr.htm	Searchable Code of Federal Regulations

Scan DOE-STD-1091-96, *Firearms Safety*, and DOE 5480.16A, *Firearms Safety*.

EXERCISE 1.15-A Identify the personal protective equipment necessary during the use of firearms.

EXERCISE 1.15-B Discuss firing range safety considerations, including required procedures and controls.

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EXERCISE 1.15-C Discuss the principles of firearms safety and describe appropriate and mandated controls.

EXERCISE 1.15-D What are the industrial hazards (e.g., noise and lead exposures) associated with firing ranges?

EXERCISE 1.15-E What firearms safety precautions are associated with Department of Energy safeguards and security operations and exercises?

3. Summary

The use of firearms is needed to insure that the security requirements are in place at DOE facilities. As a result, the emphasis on safety in the handling, use, and transport of firearms is paramount. The four general rules of safety around firearms are the premise of firearms safety. That is, all firearms are to be considered loaded; they are not to be pointed at anything unless the bearer of that firearm is prepared to destroy that object; the bearer does not touch the trigger until he or she has sighted the desired target through the sights; and that target is verified. All other firearms safety rules are in support of these four basic rules.

4. Exercise Solutions

EXERCISE 1.15-A Identify the personal protective equipment necessary during the use of firearms.

ANSWER 1.15-A DOE-STD-1091-96, *Firearms Safety*, 2.4(a) While on the range, it is mandatory to use approved eye and sound barrier-type ear protection and other personal protective equipment as required by the range safety officer.

EXERCISE 1.15-B Discuss firing range safety considerations, including required procedures and controls.

ANSWER 1.15-B DOE-STD-1091-96, *Firearms Safety*, 2.4 Range Operations and Procedures: Specific-site range safety rules and regulations shall be developed and implemented by the organization designated to be responsible for operating a live-fire range. Such rules and regulations shall be formal, provide a disciplined approach to range operations, and include rules and regulations on prefiring and postfiring range activities.

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EXERCISE 1.15-C Discuss the principles of firearms safety and describe appropriate and mandated controls.

ANSWER 1.15-C The principles of firearms safety are based on the four general rules. They are:

1. All firearms are always loaded.
2. Never point a firearm at anything you are not willing to destroy.
3. Keep your finger off the trigger until your sights are on the target.
4. Be sure of your target.

Appropriate and mandated controls are contained in DOE 5480.16A, *Firearms Safety*.

EXERCISE 1.15-D What are the industrial hazards (e.g., noise and lead exposures) associated with firing ranges?

ANSWER 1.15-D Noise hazards are controlled through the use of hearing protection. Picking up brass is a part of shooting and you must remember that there is a health hazard involved: absorbing lead into the body. Lead is a toxic substance that you need to avoid as much as possible. Over time the accumulation of lead can cause a variety of ailments:

- Loss of memory and difficulty concentrating.
- Fatigue, irritability, and noticeable aggressiveness.
- A possible loss of sexual interest.
- Insomnia, depression, and headaches.

If you take a few simple precautions, you can reduce or avoid any health problems caused by lead.

Do NOT use your hat as a container for brass when cleaning up after shooting. Lead left behind can be absorbed directly through the pores on your head.

Immediately upon leaving the range, blow your nose and wash your hands in cold soapy water.

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EXERCISE 1.15-E What firearms safety precautions are associated with Department of Energy safeguards and security operations and exercises?

ANSWER 1.15-E DOE O 5480.16A, *Firearms Safety*, Chapter 1, "Exercise Hazard and Safety Rules," states that :

- (1) Exercise plans or standard operating procedures shall discuss exercise hazards and enumerate all applicable safety rules such as those dealing with vehicles, fence climbing, and hand-to-hand combat.
- (2) Participants in exercises shall wear eye protection and hearing-protective equipment unless exercise safety considerations indicate otherwise as determined by the senior controller and approved in the exercise plan.
- (3) Directives for force-on-force exercises shall include or cover the following:
 - (a) The location of the exercise site and the identification of responsible personnel and organizations
 - (b) A description of the equipment, firearms, ammunition, explosive devices, and materials involved
 - (c) A description of the operation with appropriate diagrams
 - (d) Details of the hazardous conditions
 - (e) Procedures for the actions of personnel and/or the use and accountability of equipment
 - (f) Procedures for tracking and controlling personnel with live ammunition
 - (g) Procedures covering an accident, emergency, or unexpected occurrence
 - (h) The assignment of responsibility to ensure compliance with safety procedures
 - (i) Notification of appropriate management and of all personnel affected by the exercise

References: DOE-STD-1091-96, *Firearms Safety*.
DOE 5480.16A, *Firearms Safety*.